

What is claimed is:

*Subar*

1. A special effect image generation apparatus for processing an image to generate a special effect, comprising:

5 an image conversion means for performing predetermined image conversion to an image signal of the image;

an extraction condition setting means for extracting from the above image an image satisfying a plurality of extraction conditions among luminance extraction conditions based on a luminance signal and/or chroma extraction conditions based on at least a color signal;

10 a key signal output means for outputting a key signal for setting extraction conditions for the image based on the luminance extraction conditions and/or the chroma extraction conditions; and

20 a mixer circuit for processing the image to convert the image to a special effect image based on said signal of the image, an output signal of the image conversion means, and the key signal.

2. A special effect image generation apparatus as set forth in claim 1,

further comprising a mask pattern generation means for outputting a mask pattern for masking a region

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not to be processed in said image; and

wherein said key signal output means outputs a key signal to set said extraction conditions for said image based on said mask pattern in addition to said  
5 luminance extraction conditions and/or chroma extraction conditions.

3. A special effect image generation apparatus as set forth in claim 1,

10 further comprising an image conversion setting and processing means for selecting and setting a type of image conversion to be performed on the image and making the image conversion means perform the selected and set image conversion on said image; and

15 wherein the selection and setting of the type of image conversion in said image conversion setting and processing means and the setting of said luminance extraction conditions and/or chroma extraction conditions are freely and independently performed.

20 4. A special effect image generation apparatus as set forth in claim 3,

further comprising a mask pattern generation means for outputting a mask pattern to mask a region not to be processed in said image; and wherein

25 said key signal output means outputs a key signal for setting said extraction conditions for said

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image based on said mask pattern in addition to said  
luminance extraction conditions and/or chroma extraction  
conditions; and

the setting and adjustment of the mask pattern  
5 generated by said mask pattern generation means, the  
selection and setting of the type of image conversion in  
said image conversion setting and processing means, and  
the setting of said luminance extraction conditions  
and/or chroma extraction conditions are freely and  
10 independently performed.

5. A special effect image generation apparatus as  
set forth in claim 1, further comprising a wave-filtering  
and shaping means for filtering and shaping the output  
signal of said extraction condition setting means.

15 6. A special effect image generation apparatus as  
set forth in claim 1, wherein said image conversion means  
reduces the number of gradients of data of said image.

7. A special effect image generation apparatus as  
set forth in claim 1, wherein said image conversion means  
20 divides said image into blocks of uniform density.

8. A special effect image generation apparatus as  
set forth in claim 1, wherein said chroma extraction  
conditions are extraction conditions based on a luminance  
signal and color difference signal of said image.

25 9. A special effect image generation apparatus as

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set forth in claim 1, wherein said chroma extraction conditions are decided for a two-dimensional region of a color difference value defined by a color difference signal of blue and luminance and a color difference signal of red and luminance of said image.

10. A special effect image generation apparatus as set forth in claim 8, wherein said chroma extraction conditions are decided for a three-dimensional region of a color difference value and a luminance value defined by a color difference of a two-dimensional region of said color difference signal and a luminance value at a predetermined position in said two-dimensional region.

11. A special effect image generation apparatus as set forth in claim 1, wherein said extraction condition setting means extracts an image based on a NAM output of said luminance extraction conditions and/or said chroma extraction conditions.

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